UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/700,093	11/10/2000	Lucian Hirsch	P00-1767	1415

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STAAS & HALSEY LLP
SUITE 700
1201 NEW YORK AVENUE, N.W.
WASHINGTON, DC 20005

EXAMINER
ZHEN, LI B

ART UNIT	PAPER NUMBER
2194	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

	Application No.	Applicant(s)	
Office Action Summary	09/700,093	HIRSCH ET AL.	
	Examiner	**Art Unit**	
	Li B. Zhen	2194	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *14 May 2007*.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *2-30* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *2-30* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

1.   Claims 2 – 30 are pending in the application.

Continued Examination Under 37 CFR 1.114

2.   A request for continued examination under 37 CFR 1.114, including the fee set

forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this

application is eligible for continued examination under 37 CFR 1.114, and the fee set

forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action

has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on

05/14/2007 has been entered.

Response to Arguments

3.   Applicant's arguments with respect to the claims have been considered but are

moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

4.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

5.   This application currently names joint inventors. In considering patentability of

the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of

the various claims was commonly owned at the time any inventions covered therein

were made absent any evidence to the contrary. Applicant is advised of the obligation

under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was

not commonly owned at the time a later invention was made in order for the examiner to

consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g)

prior art under 35 U.S.C. 103(a).

**6.   Claims 17 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable
over U.S. Patent No. 5,903,568 to Tanaka et al. [hereinafter Tanaka, cited in the
previous office action] in view of U.S. Patent No. 6,041,350 to Takimoto.**

7.   As to claim 17, Tanaka teaches the invention substantially as claimed including a

communication system for processing state information [event notification; col. 7, lines 3

– 11] in a management network having a number of management levels [multilayer

management system; col. 6, lines 22 – 50], comprising:

an agent at a first management level storing state information associated

therewith [lower-layer agent 107 gives an event notification $N.sub.n-1$ 1 produced in the

managed object $M.sub.n-1$ 1; col. 10, lines 38 - 48];

a manager at a second management level above the first management level

[upper-layer manager 101; col. 6, lines 22 – 50], sending a request message for

performing state realignment to the agent [a lower-layer manager 106 for performing a

service function in response to a request from the upper-layer manager 101, a plurality

of lower-layer agents 107 for performing a service function in response to a request

from the lower-layer manager 106; col. 6, lines 22 – 50 and col. 7, lines 3 – 11], the

agent checking the state information with regard to deviations from a normal state

[lower-layer agent 107 gives an event notification N.sub.n-1 1 produced in the managed

object M.sub.n-1 1 to the lower-layer manager 106 in a step 401; col. 10, lines 45 - 48],

and sending deviant state information of the agent indicating the deviations to the

manager in response to the request message [Event notifications which correspond to

the upper layer in the managed-object correspondence information database 105 are

reported to the upper-layer agent 102 in a step 406; col. 10, line 48 – col. 11, line 18].

Although Tanaka teaches sending deviant state information of the agent, Tanaka does

not specifically disclose sending only deviant state information of the agent indicating

the deviations from the normal state to the manager in response to the request

message.

However, Takimoto teaches a communication system for processing state

information [col. 12, line 60 – col. 13, line 10] in a management network having a

number of management levels [col. 7, lines 55 – 65], sending a request message for

performing state realignment to the agent [means for obtaining required attribute

information of managed objects from the network element management systems 11, 12

and synchronizing information actively; col. 13, lines 18 – 30], and sending only deviant

state information of the agent indicating the deviations from the normal state to the

manager in response to the request message [EFD makes it possible for an agent (the

network element management systems 11, 12) to notify a manager (the network

management system 21) of information relating to generation/deletion of managed

objects and to modification of attribute values; col. 12, line 60 – col. 13, line 10].

It would have been obvious to a person of ordinary skill in the art at the time the

invention was made to modify the invention of Tanaka to incorporate the features of

Takimoto because this improves the agreement between attribute values of duplicate

managed objects in a network management system and attribute values of managed

objects in a network element management system and to make it possible to respond

accurately to a higher layer service management system or user terminal in a short

period of time [col. 4, lines 12 – 20 of Takimoto].

8.   As to claim 30, Tanaka as modified teaches a method for processing state

information [event notification; col. 7, lines 3 – 11 of Tanaka] in a communication system

by way of a management network having a number of management levels [multilayer

management system; col. 6, lines 22 – 50 of Tanaka], comprising:

storing, at an agent of a first management level, state information associated with

the agent [lower-layer agent 107 gives an event notification $N.sub.n-1$ 1 produced in the

managed object $M.sub.n-1$ 1; col. 10, lines 38 - 48 of Tanaka];

sending, to the agent from a manager at a second management level [upper-

layer manager 101; col. 6, lines 22 – 50 of Tanaka] above the first management level, a

request message for performing state realignment [a lower-layer manager 106 for

performing a service function in response to a request from the upper-layer manager

101, a plurality of lower-layer agents 107 for performing a service function in response

to a request from the lower-layer manager 106; col. 6, lines 22 – 50 of Tanaka and col.

7, lines 3 – 11 of Tanaka];

comparing by the agent, the state information previously stored by the agent for

deviation from a normal state [lower-layer agent 107 gives an event notification N.sub.n-

1 1 produced in the managed object M.sub.n-1 1 to the lower-layer manager 106 in a

step 401; col. 10, lines 45 - 48 of Tanaka]; and

sending, by the agent to the manager in response to the request message, only

deviant state information indicating deviation from the normal state of the state

information previously stored by the agent [EFD makes it possible for an agent (the

network element management systems 11, 12) to notify a manager (the network

management system 21) of information relating to generation/deletion of managed

objects and to modification of attribute values; col. 12, line 60 – col. 13, line 10 of

Takimoto].

9.   Claims 2 – 16 and 18 – 29 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Tanaka and Takimoto further in view of U.S. Patent No.

6,404,743 to Meandzija [cited in the previous office action].

10.   As to claim 2, Tanaka as modified does not specifically teach an administrative

state.

However, Meandzija teaches utilizing state attributes selected from the group

consisting of an operational state [operational state], an administrative state [an event

forwarding discrimination group, which includes an administrative state, an operational

state; column 11, lines 38 – 45] and a usage state [usage state 420; column 12, lines 29

– 36] as state information.

It would have been obvious to a person of ordinary skill in the art at the time of

the invention to apply the teaching of utilizing administrative state as state information

as taught by Meandzija to the invention of Tanaka and Takimoto because administrative

state can be set by a manager and used to administratively prohibit an agent from use

and in conjunction with a community string, the administrative state can be used for

concurrency control [col. 12, lines 8 – 12 of Meandzija].

11.   As to claim 3, Tanaka as modified teaches the normal state is defined by values

for the state attributes [state values and state transitions are as defined in the ITU-T

X.731 standard; column 11, line 65 – column 13, line 33 of Meandzija] selected from the

group consisting of an operational state, an administrative state, a usage state, an

unknown state, an alarm status [value defined for the alarm status in the X.731 standard

is a set of enumerated values; column 12, lines 54 – 65 of Meandzija], and an available

status [value defined for the availability status in the X.731 standard is a set of

enumerated values; column 12, line 65 – column 13, line 9 of Meandzija].

12.   As to claim 4, Tanaka as modified teaches utilizing state attributes for

characterizing an operational readiness [operational state 415 describes the operational

state of the unit represented by the agent/subagent; column 12, lines 13 – 28 of

Meandzija], manageability [administrative state 410 describes the administrative state of

the unit represented by the agent/subagent; column 11, line 65 – column 12, line 2 of

Meandzija] and use of a resource [availability status 435 describes-the availability status

of the unit represented by the agent/subagent; column 12, line 65 – column 13, line 9 of

Meandzija] supported by the agent in the communication system as state information.

13.   As to claim 5, Tanaka as modified teaches utilizing status attributes, which

specify for a resource supported by the agent in the communication system whether it is

in an unknown state [unknown status describes the unknown status of the unit

represented by the agent/subagent; column 13, lines 27 – 34 of Meandzija], in an

alarmed state [alarm status 430 describes the alarm status of the unit represented by

the agent/subagent; column 12, lines 54 – 65 of Meandzija] or in a state of availability

[availability status 435 describes-the availability status of the unit represented by the

agent/subagent; column 12, line 65 – column 13, line 9 of Meandzija], as state

information.

14.   As to claim 6, Tanaka as modified teaches sending by the manager in the

request message a correlation information item for a correlation of the respective

request with messages containing changed state information received by the agent

[Event Forwarding Discriminator (EFD) Group 530 comprises EFD configuration

information defining what types of events an EFD will transform into notifications, at

what times of day it will do so, and to which managers it will send the notifications to;

column 13, lines 48 – 55 of Meandzija].

16.   As to claim 7, Tanaka as modified teaches sending by the agent in a message

for starting the state realignment, a correlation information item for correlating the

messages containing changed state information subsequently sent with the state

realignment started in each case [once the agent generates an event as specified in the

Event table 515, it checks an EFD Table 535 to find an EFD that matches that event

and specifies what kind of notification is to be generated, and to which manager that

notification is to be sent; column 14, lines 8 – 15 of Meandzija].

16.   As to claim 8, Tanaka as modified teaches sending the correlation information

generated by the agent in the message or messages containing the changed state

information [generating the event at the agent and communicating a notification

regarding the event from the agent to the management station via the network; column

4, lines 55 – 65 of Meandzija].

17.   As to claim 9, Tanaka as modified teaches sending by the manager a parameter

to the agent and controlling the state realignment in dependence on the parameter

[event information also defines EFD information that defines pre-conditions for

communicating a notification of an event from the agent 230 to the management station

210 via the network 160; column 10, lines 57 – 67 of Meandzija].

18.   As to claim 10, Tanaka as modified teaches sending by the manager a

parameter and automatically initiating the state realignment [automatic schedule] by the

agent utilizing the parameter [the agent may have an automatic schedule which defines

time periods in which a notification may be provided for certain events; column 6, lines

13 – 21 of Meandzija].

19.   As to claims 11 and 12, Tanaka as modified teaches providing a parameter by

the manager with a parameter value which specifies a starting time [start time] and end

time [stop time] for the automatic state realignment [scheduling function 540 includes

specifications of a daily start and stop time and a weekly mask specifying when the EFD

changes availability status from off-duty to available; column 14, lines 16 – 33 of

Meandzija].

20.   As to claim 13, Tanaka as modified teaches providing by the manager a

parameter with a parameter value which specifies a time interval [time periods] for a

repetition of the automatic state realignment [the agent may have an automatic

schedule which defines time periods in which a notification may be provided for certain

events; column 6, lines 13 – 21 of Meandzija].

21.   As to claim 14, Tanaka as modified teaches providing by the manager a

parameter with a parameter value which characterizes resources for which changed

state information [specifies what type of notification] must be transmitted by the agent [Each EFD specifies what type of notification is to be sent for an event that has occurred in the agent; column 13, lines 55 – 67 of Meandzija].

22.   As to claim 15, Tanaka as modified teaches providing, by the manager, a parameter [control status] with a parameter value that permits interruption [suspended] of a running state realignment [control status describes the control status of the unit represented by the agent/subagent with the possible values of subjectToTest, partLocked, reservedToTest, suspended, and free; column 13, lines 8 – 19 of Meandzija].

23.   As to claim 16, Tanaka as modified teaches sending, by the manager, the parameter to the agent in the request message [events processing module 224 is used to provide event information that is communicated to the agent to define pre-conditions for the agent to generate an event; column 10, lines 57 – 67 of Meandzija].

24.   As to claim 24, Tanaka as modified teaches utilizing state attributes selected from the group consisting of an unknown state [unknown status describes the unknown status of the unit represented by the agent/subagent; column 13, lines 27 – 34 of Meandzija], an alarm status [alarm status 430 describes the alarm status of the unit represented by the agent/subagent; column 12, lines 54 – 65 of Meandzija], and an available status [availability status 435 describes-the availability status of the unit

represented by the agent/subagent; column 12, line 65 – column 13, line 9 of

Meandzija] as state information.

25.   As to claims 18 – 23 and 29, these are system claims that correspond to method

claims 2 – 5, 9, 10 and 24; note the rejection to claims 2 – 5, 9, 10 and 24 above, which

also meets these system claims.

26.   As to claims 25 – 28, these are rejected for the same reasons as claim 19 and 14

– 16 above.

CONTACT INFORMATION

27.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Li B. Zhen whose telephone number is (571) 272-3768.

The examiner can normally be reached on Mon - Fri, 8:30am - 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, William Thomson can be reached on 571-272-3718. The fax phone number

for the organization where this application or proceeding is assigned is 571-273-8300.

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Li B. Zhen
Examiner
Art Unit 2194

LBZ

7/26/2007